Planning Services

Educational Projects
1986-87

Alberta
EDUCATION

EDUCATIONAL PROJECTS

1986-87

Planning Services Branch
Alberta Education
August, 1986

FOREWORD

I believe that Alberta's future rests with its children, and that the individual contributions they make depend very much on the quality of education received.

To prepare students to help shape tomorrow's society, education must keep pace with the rapidly changing world and must anticipate and serve the needs of students, schools, and communities throughout the province. A well-designed research program is one way of obtaining information on how educational practices and programs can be revised or renewed to provide productive and progressive learning experiences that prepare students for the challenges ahead. It is also a means through which the people who work in schools, along with parents and other interested persons, can apply their knowledge and skills to realize shared goals, and to create new opportunities which students might not otherwise have.

The Planning Services Branch continues to guide the educational research program by helping to set research priorities so that resources are used where most needed. It also maintains high standards of research, and encourages innovation, co-operative efforts, and the sharing of information among participants of the educational system.

This handbook describes the educational research program, and outlines the projects underway for 1986-87, and those completed between April 1985 and July 1986.

I look forward to the many activities engendered through the program, and to the development of educational opportunities for Alberta students.

Sincerely,

H.I. Hastings

H.I. Hastings
Director
Planning Services Branch

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PRIORITIES, GUIDELINES, AND PROCEDURES FOR EDUCATIONAL PROJECT GRANTS

INTRODUCTION

Each year, the Planning Services Branch provides grants to school boards, universities, other educational institutions, or individuals to conduct projects which will improve educational opportunities for Alberta students. These projects must be consistent with the annual research priorities which reflect Provincial priorities and initiatives, educational areas requiring improvement, and the particular concerns of participants in the educational system. Projects must also focus on:

innovation - the generation, acceptance, and use of new educational ideas, processes, products or services;

integration - the incorporation of what is new into what is already known in order to provide continuity in educational experiences and facilitate the acquisition and assimilation of knowledge, skills, and positive attitudes;

individualization - the accommodation of the needs and learning styles of individual students to help them develop to their fullest potential.

Findings from these projects must be translated into practical applications. Research findings must also indicate how changes which make a positive difference in the education of children can be brought about in programs and the ways in which they are delivered, in learning environments, and in the current educational practices and management activities of teachers and administrators.

1986-87 ALBERTA EDUCATION PROJECT PRIORITIES

IMPROVEMENT OF TEACHING AND LEARNING

Projects will be directed primarily toward developing, applying, and assessing the effect of instructional methods on student learning.

Teaching Effectiveness:

- o developing and testing effective teaching practices and innovative inservice programs to enhance instruction and student learning;
- o developing and testing models for teacher education and supervision based on information collected from the Initiation to Teaching Project and from initiatives undertaken by Alberta schools.

Teaching-Learning Process with an Emphasis on Secondary Education:

- o testing instructional techniques, which may include the use of technology, for developing the communication, critical thinking, and decision-making skills, and the creativity of all students;
- o determining how technology can best be used to facilitate instruction and to promote student learning;
- o piloting and assessing programs designed to develop students' self-confidence, desirable personal and societal values, and sense of responsibility;
- o conducting long-term studies of existing educational initiatives to ascertain to what extent they make a difference in the education of children.

Special Education Programs/Services:

- o developing and testing programs/services which will challenge and help gifted and talented students develop their potential;
- o integrating programs for special needs students into the regular programming of schools;
- o developing and testing individual program plans to meet the special needs of children in integrated and segregated programs.

EVALUATION POLICIES

Projects will focus on assisting school systems to implement provincial and local evaluation policies, and on facilitating the attainment of excellence.

Systems Evaluation:

- disseminating and applying results from projects, especially models/frameworks that have been successfully developed and tested.

Program Evaluation:

- evaluating programs designed to develop students' skills in entrepreneurship, goal-setting, innovativeness, creativity, risk-taking, and the generating and testing of alternatives;

- evaluating curricular and support programs for regular and special education.

Teacher Evaluation:

- disseminating and applying models/frameworks and practices that have been successfully developed and tested;

- testing the effect of policy on improving instruction.

MANAGEMENT OF EDUCATION

Projects will be directed toward improving provincial, school system, school, and classroom management practices.

The Management and Finance Plan (MFP):

- o assessing the impact of MFP on the delivery of education;
- o improving the management of education at the provincial level;
- o improving the management of education in school systems;
- o assessing the impact of the Annual Education Reports.

Alternative Delivery Modes:

- o integrating technology into the curriculum;
- o using the educational services and resources of the community including individuals, and private and voluntary agencies.

Leadership Skills:

- o developing and applying the skills and attitudes necessary to enhance leadership and management, especially those pertaining to the roles and responsibilities of superintendents and principals.

Management of School Capital Funds:

- o assessing School Capital Programs and developing departmental strategies for optimizing the use of school capital funds.

GUIDELINES AND CRITERIA FOR EVALUATING PROJECT PROPOSALS

Alberta Education will use the following **guidelines** to determine the eligibility of project proposals. Proposals must be consistent with Alberta Education's 1986-87 project priorities, and should:

(a) apply research knowledge and educational principles and theory to the solving of significant educational problems;

(b) have the potential for producing observable benefits for students, and results which can be used readily by educators and administrators in other school jurisdictions or educational settings;

(c) use existing resources in more effective and efficient ways to enhance instruction and instructional outcomes;

(d) include, wherever appropriate, innovative ways of solving educational problems through the use of technology;

(e) demonstrate an awareness/understanding of change processes and include strategies for applying the expected outcomes;

(f) elicit the support and commitment of appropriate branches of Alberta Education, and other stakeholders who may be affected by the project;

(g) indicate that applicants are prepared to share in costs associated with conducting the project;

(h) indicate that applicants are capable of and committed to managing the project to completion and implementing the findings within their own jurisdiction.

If project proposals are consistent with the guidelines and are determined to be eligible, they will be further assessed for final approval according to the following **criteria:**

(a) Study Strategy

- o quality of research design;
- o comprehension of problems and related aspects;
- o potential of problem-solving strategy to provide essential information;
- o sufficient flexibility to ensure success.

(b) Skills and Abilities

- o ability to identify, collect, and prepare information to solve problems;
- o ability to plan, arrange, and control tasks to ensure study success (project plan included);
- o ability to develop harmonious working relationships and involve others;
- o ability to understand and represent the interests of the client.

(c) Knowledge and Expertise

- o extent of knowledge based on education, experience, and research;
- o ability to apply knowledge to the problem under study;
- o extent of experience in the field of study under consideration.

(d) General

- o realistic budget, plan, and timelines;
- o sufficient resources to undertake the project;
- o Alberta Education's budgetary considerations.

APPLICATION PROCEDURES

The application for funding comprises two stages so that the applicant receives responses to a preliminary proposal before preparing a detailed one.

Stage One: Preliminary Project Proposal

1. A preliminary project proposal is submitted to:

   Director, Planning Services Branch
   Alberta Education
   Devonian Building
   11160 Jasper Avenue
   Edmonton, Alberta
   T5K OL2

   The preliminary project proposal must be endorsed by the applicant and an officer of the sponsoring school system or institution, and should contain the following information as well as other information relevant to the guidelines:

   (a) project title;

   (b) purpose/goal with a description of the educational needs or problems to be addressed;

   (c) expected outcomes and benefits to students;

   (d) description of how expected results may be integrated into the activities of the sponsoring school jurisdiction, and may be used by educators and administrators in other jurisdictions or educational settings;

   (e) time frame - project start and completion dates;

   (f) budget - total cost of the project, contribution by grant applicant, and funding required from Alberta Education.

Note: Alberta Education does not provide funds for items which are financed from other government departments or Alberta Education Program Grants.

2. The Planning Services Branch will review the preliminary project proposal to determine its eligibility according to the established guidelines. If it is deemed eligible, the applicant will be invited to submit a detailed project proposal.

Stage Two: Detailed Project Proposal

1. A detailed project proposal signed by the applicant and an officer of the sponsoring school system or educational institution is submitted to the Director, Planning Services Branch. The detailed project proposal should include the following information:

   (a) project title;

   (b) description of the project;

   (c) project design:

   - o methodology;
   - o procedures and resources to be used in obtaining information relevant to the problems under consideration;
   - o a detailed timeline for the project including dates for the completion of project phases and scheduled payments.

   (d) itemized budget:

   - o staff and salaries;
   - o travel and subsistence;
   - o materials and supplies;
   - o resources committed by the applicant;
   - o resources required.

   (e) a plan for monitoring and evaluating the effectiveness of the project;

   (f) a plan indicating how the expected results may be integrated where appropriate into the activities of the sponsoring school jurisdiction, and how these results may be used in other jurisdictions or educational settings;

   (g) other information that may be relevant to the conduct of the project such as the acquisition of contracted services.

2. Once the detailed project proposal has been reviewed, the Director of the Planning Services Branch will notify the applicant of the final decision: acceptance, acceptance pending required modifications, or rejection of the proposal.

   Approval of the project is finalized when the contract is executed between Alberta Education and all parties subject to the contract.

PROJECTS UNDERWAY
1986 - 1987

IMPROVEMENT OF TEACHING AND LEARNING

Teaching Effectiveness

Initiation to Teaching Project

Purpose: The Initiation to Teaching Project was established in September 1985 to provide opportunities for recent education graduates to secure employment, and to develop their teaching skills. A comprehensive evaluation of the internship program will determine if it is an effective means for enhancing the skills of beginning teachers. Two interim reports will guide the second year of the study, and a final evaluation report will contain comprehensive recommendations for the project.
Outcomes: Project findings will provide a sound direction for evaluating and supervising interns and teachers, and for enhancing pre-service education.
Researcher: Dr. Eugene Ratsoy, et al., Department of Educational Administration, University of Alberta.
Branch Manager: Nelly McEwen.
Timelines: October 1985 - March 1987.
Status: Approved.

Impact of Teacher Evaluations

Purpose: The project will examine teachers' perceptions and attitudes toward past evaluations, and the consequent effects on their classroom practices and student learning.
Outcomes: Results will indicate the effects of evaluations on teachers' behaviours and beliefs, and the relative merits of different teacher/evaluator interactions.
Researcher: Dr. David Beresh.
Branch Manager: Warren Hathaway.
Timelines: October 1985 - December 1986.
Status: Approved.

Note: Timelines for projects are subject to amendments. Information on a project is generally published three or four months after its completion.

Calgary Learning Centre Inservice Evaluation Project

Purpose: The effectiveness of various inservice models used for training teachers of learning disabled students will be tested in urban districts that have university access and in rural districts. The study will determine: (1) what topics are of most concern to regular classroom teachers, special education teachers, service staff, and administrators, and (2) what factors influence how well the various inservice models meet the needs expressed by school personnel in both areas.
Outcomes: Project findings will indicate the specific skills and competencies needed for effectively teaching learning disabled students, and the most appropriate inservice models for promoting the acquisition of these skills in different educational settings.
Researcher: Calgary Society for Students with Learning Difficulties.
Branch Manager: Warren Hathaway.
Timelines: April 1985 - November 1986.
Status: Approved.

Selection of Teacher Education Candidates

Purpose: The project will examine the criteria used to select teacher education candidates, and determine the characteristics/qualities of teachers being trained, the effect of training programs on these characteristics, and the significant differences among candidates in Alberta programs.
Outcomes: Findings will be used to develop criteria for a more effective selection of candidates.
Researcher: Dr. Myrna Green, University of Lethbridge.
Branch Manager: Warren Hathaway.
Timelines: Four years.
Status: Proposal is being developed.

Teacher Selection Practices Used by Alberta School Systems

Purpose: A project team will examine and describe the procedures that Alberta school systems use to select teachers. These procedures will then be compared to ones which are comprised in a teacher selection model, and which research has shown to be the most effective. A final report will outline the results of the comparison, and draw conclusions about which teacher selection procedures are most effective.
Outcomes: The information collected will assist Alberta school systems to enhance the practices and procedures used in selecting teachers.
Researcher: Dr. Robert Carter.
Branch Manager: Warren Hathaway.
Timelines: June 1986 - December 1986.
Status: Approved.

Evaluation of the Preservice Competence of Teachers

Purpose: The study will determine: (1) on what basis new candidates should be selected for teacher education programs, (2) the kinds of programs which should be offered, (3) reasonable expectations to hold for new graduates, and (4) how to structure the early years of practice so that a desire for continued learning is fostered.
Outcomes: Findings will indicate how to improve teacher preparation programs at universities, and the ways in which teachers are introduced to practising their skills in classrooms.
Researcher: Dr. Rod Conklin, University of Calgary.
Branch Manager: Warren Hathaway.
Timelines: May 1986 - November 1986.
Status: Approved.

Sources of Elementary Teachers' Perspectives and Decisions: Implications for Preservice and Inservice Education

Purpose: The project will identify: (1) the perspectives held and the kinds of teaching decisions made throughout the year by recent graduates of an elementary generalist teacher education program, and (2) the factors which affect teachers' beliefs and decision-making (including preservice, inservice, other).
Outcomes: The insights gained through this project will contribute to improving teacher preparation and inservice education.
Researcher: Dr. Clarke Chamberlain, et al., Department of Elementary Education, University of Alberta.
Branch Manager: Warren Hathaway.
Timelines: May 1986 - May 1987.
Status: Approved.

Teachers' Evaluation of Their Preparation for Teaching

Purpose: The study will examine teachers' perceptions of the preservice they received, and will report perceptions which indicate how programs can be improved. Comparisons of different programs will determine their relative strengths and weaknesses.
Outcomes: The information will be of interest to Faculties of Education, members of the teaching profession, and policy makers responsible for teacher education.
Researcher: Alberta Teachers' Association et al.
Branch Manager: Irving Hastings and Warren Hathaway.
Timelines: September 1985 - August 1986.
Status: Approved.

Teaching-Learning Process with an Emphasis on Secondary Education

Educational Effects of Word Processing

Purpose: The study explores how computer word processing can be used to facilitate the teaching of language arts and social studies in grades 4 through 9, and the consequent effects on student learning, behaviours, attitudes, and writing abilities.
Outcomes: Findings will indicate how computers can be used in courses which require considerable reading and writing, the types of inservice that enable teachers to integrate word processing with the curricula, and teaching strategies which lead to improved student achievement.
Researcher: County of Lacombe #14.
Branch Manager: Warren Hathaway.
Timelines: September 1985 - December 1986.
Status: Approved.

Cognitive Education Longitudinal Study

Purpose: The study will evaluate the relative efficiency of two cognitive education strategies and conventional instruction, with respect to: (1) the thinking skills, academic achievement and effective development of upper elementary and junior high school students, (2) the relative facility with which teachers provide instruction, (3) the ease with which teachers can learn and use each of the cognitive education strategies.
Outcomes: Information from field settings will determine (1) the effects of the two cognitive education strategies on learning disabled, gifted, and regular upper elementary and junior high school students, (2) the effectiveness of the inservice approaches designed to help teachers use the strategies, and (3) procedures used to measure students' cognitive skills. A set of guidelines will then be developed for educators.
Researcher: Dr. Robert Mulcahy, et al., Department of Educational Psychology, University of Alberta.
Branch Manager: Nelly McEwen.
Timelines: Five years from November 1984 - December 1988.
Status: Approved.

Teaching Thinking Skills

Purpose: Teachers involved in this project will test an alternative education model, methods and resources for developing the creativity and divergent thinking skills of elementary school students.
Outcomes: The study will demonstrate the effectiveness of the model, and that students in the experimental group will do as well as or better than control students in areas such as creativity, abstract thinking, self-concept, and attitudes toward school.
Researcher: Lethbridge Roman Catholic Separate School District #9.
Branch Manager: Warren Hathaway.
Timelines: May 1985 - December 1987.
Status: Approved.

A New Methodology for LOGO to Produce Cognitive Change

Purpose: The project will attempt to: a) prove that the computer provides a medium for learning thinking skills that are necessary for problem-solving, and b) provide a curriculum for transferring these skills from the computer programming environment to the real world.
Outcomes: The study will: provide curriculum material that combines the teaching of thinking skills with the content area of LOGO; indicate the benefits for children; and introduce teachers to current theories of cognitive psychology.
Researcher: The Canadian Centre for Learning Systems.
Branch Manager: Warren Hathaway.
Timelines: August 1986 - June 1987.
Status: Approved.

Special Education Programs/Services

Instructional Resources for Educating Gifted and Talented Pupils

Purpose: The project will develop a practical and well-researched listing of instructional resources for teaching gifted and talented students.
Outcomes: A comprehensive handbook of annotated instructional resources will be distributed to teachers and administrators throughout the province.
Researcher: Dr. Shirley Henslowe, Faculty of Education, University of Lethbridge.
Branch Manager: Warren Hathaway.
Timelines: April 1985 - July 1986.
Status: Approved.

Gifted and Talented Pupils' Programs in Three School Districts

Purpose: The project team will develop and test procedures for evaluating programs for gifted students in three school systems of dissimiliar size to provide local policy makers, planners, and teachers with information required to revise or renew programs.
Outcomes: Educators in other school jurisdictions will find the descriptions and recommendations useful in reviewing and planning their own programs.
Researchers: Drs. W. D. Wilde and M. T. Sillito.
Branch Manager: Warren Hathaway.
Timelines: To be completed August 1986.
Status: Approved.

Educating the Gifted: Evaluation Components

Purpose: A project team will develop a set of guidelines for evaluating programs for gifted and talented pupils and for rating the progress of individual students. The guidelines will be organized according to sequential steps for successful evaluations: 1) developing evaluation questions, 2) identifying appropriate sources of data, 3) developing appropriate procedures for gathering data, 4) organizing data, 5) answering evaluation questions, 6) reporting findings.
Outcomes: A handbook of general principles and models for evaluation will be distributed to assist evaluators in planning and conducting local evaluations. The handbook will also include issues and concerns expressed by teachers and found in the literature about evaluating gifted students.
Researchers: Drs. W. D. Wilde and M. T. Sillito.
Branch Managers: Warren Hathaway.
Timelines: To be completed August 1986.
Status: Approved.

Underachieving Gifted Students: Identification, Characteristics, and Intervention

Purpose: The study will provide recommendations for identifying gifted and talented students who are not achieving as well as they could be, and will test and evaluate useful intervention strategies for selected school programs.
Outcomes: Findings will assist educators to identify underachieving gifted students, and to use the teaching strategies most appropriate for helping students to realize their potential.
Researcher: Dr. Anita Li, et al., University of Calgary.
Branch Manager: Warren Hathaway.
Timelines: April 1986 - August 1988, with a possible extension to June, 1989.
Status: Approved.

Individualized Program Plans

Purpose: The uses and formats of "Individual Program Plans" will be tested to determine how well they meet the special needs of children in integrated and segregated programs.
Outcomes: Findings will help educators to individualize instruction for children with special educational needs.
Researcher: Alberta Education.
Branch Manager: Warren Hathaway et al.
Timelines: To be established.
Status: Proposal being developed.

Music Through Braille

Purpose: Researchers will develop an instructional course and a related text with braille music notation to help teachers improve instruction for blind students.
Outcomes: Project results will be used to improve opportunities for students with special needs to study, learn, and develop musical skills.
Researcher: Alberta College Conservatory.
Branch Manager: Sharon Campbell.
Timelines: To be completed by December, 1986.
Status: Approved.

Computer Assisted Instruction for Improving the Academic Standing of Native Adolescents

Purpose: The project will assess how computer assisted instruction (CAI) can improve the academic standing of native adolescents who have severe deficiencies in language arts and mathematics.
Outcomes: Findings will determine the effects of CAI on student learning, attitudes toward subjects, self-confidence, school attendance, and drop-out rates. Information on program planning, implementation, and evaluation will further assist educators and administrators to enhance education for native students.
Researcher: County of Ponoka #3.
Branch Manager: LeRoy Larson.
Timelines: May 1984 - September 1988.
Status: Approved.

Identification of Students Whose Parents Meet the Test of Section 23 of The Charter of Rights and Freedoms

Purpose: The project consists of four phases. The first phase has been completed. The second will determine how many students in each school jurisdiction are eligible for French language instruction under Section 23 of the Charter. The third and fourth phases will determine how many students in each school have received, or are receiving, their education in French.
Outcomes: The information tabulated will assist Alberta Education and school systems to develop plans, programs, and services to address the needs of students whose first language learned and understood is French.
Researcher: Dr. Louise Zdunich.
Branch Manager: Gary Zatko.
Timelines: Phase 2 to be completed shortly.
Phase 3 and 4 to be completed in 1986-87.
Status: Approved.

EVALUATION POLICIES

System Evaluation

Rocky Mountain School Evaluation Model

Purpose: A model for evaluating the school system will be piloted. The model comprises a set of measures which can be used to determine the school system's effectiveness in providing students with the best possible education at the lowest possible cost.
Outcomes: School systems will be able to use the model to determine expediently how effectively local objectives and goals are being met, and to gather the information required to enhance selected aspects of the system.
Researcher: Rocky Mountain School Division #15.
Branch Manager: Warren Hathaway.
Timelines: January 1985 - December 1986.
Status: Approved.

Strathcona System Review Design

Purpose: A research team will: (a) design a set of procedures and instruments for a comprehensive school system evaluation; (b) use the procedures and instruments to evaluate the system; (c) develop a plan for ongoing system evaluation; and (d) design a framework for assessing alternative scenarios based on findings from the evaluation.
Outcomes: Project results will be used to construct a model for evaluating school systems. The measures constituting the model will help Alberta Education and school systems agree on effective indicators of educational achievement.
Researcher: County of Strathcona #20.
Branch Manager: Warren Hathaway.
Timelines: August 1985 - March 1987.
Status: Approved.

Systems Review Model

Purpose: The project will analyze and use the results obtained from previous projects which tested models for evaluating school systems to construct a framework for evaluating educational organizations. The framework will be thoroughly field tested and refined.
Outcomes: School jurisdictions and Alberta Education can use the framework for measuring the extent to which they achieve educational goals, how effectively and efficiently they do so, and with what results. The framework can be used for a comprehensive evaluation of organizational activities, for examining or reviewing selected problem areas, or for long term planning, evaluations, and renewal of programs. Use of the framework will also facilitate province-wide reporting of educational outcomes, and comparison of selected aspects of educational systems.
Researcher: Alberta Education.
Branch Manager: Larry Hlushak and Gary Zatko.
Timelines: To be established.
Status: Proposal being developed.

Action Plan To Improve School-Community Relations in the County of Lacombe

Purpose: The project will use results of a survey conducted in May 1985 to change aspects of education in the county. At the end of a year, a second survey will be conducted to assess the results.
Outcomes: School jurisdictions will be able to use the information collected to assess their ability to measure attitudes toward education, carry out plans to change educational activities, and assess the outcomes.
Researcher: County of Lacombe #14.
Branch Manager: Warren Hathaway.
Timelines: April 1986 - March 1987.
Status: Approved.

Community Attitude Survey Analysis: Software Development

Purpose: A community attitude survey has been developed to support evaluations of schools and school systems, but each time the survey is used, contracted analysis of the information collected costs in excess of $15,000. The project will develop a software package for Apple IIe and IBM PC equipment, and will make the package available to school jurisdictions so that they can do their own analysis at a fraction of the cost.
Outcomes: The availability of the software packages will make the use of the community attitude survey feasible for all school jurisdictions.
Researcher: To be selected.
Branch Manager: Warren Hathaway.
Timelines: June 1985 - December 1986.
Status: Approved.

Program Evaluation

Evaluation of Community Schools

Purpose: The Community School Program has been operating since the summer of 1980, and there are now 66 designated community schools in the province. The study will determine how effective the program is, whether community schools are significantly different from others, and the particular benefits which students and communities derive from the program.
Outcomes: Project results will be used to determine whether the Community School Program should be continued, discontinued, or modified.
Researcher: Drs. Anne Harvey and Thomas McGuire, Harvey Social Research Ltd.
Branch Manager: LeRoy Larson.
Timelines: November 1985 - May 1986.
Status: Approved.

Language Arts Product Evaluation

Purpose: Researchers will develop and validate tests for listening skills, and procedures for scoring the writing done by students in grades 1 through 6. The listening tests and scoring guides will be distributed to all Alberta schools.
Outcomes: The tests and procedures will help teachers to assess students' progress in developing listening and writing skills, and to identify more readily the problems which pupils experience in language arts programs.
Researcher: Dr. Emma Plattor et al., Grande Prairie School District #2357.
Branch Manager: Warren Hathaway.
Timelines: October 1983 - August 1986.
Status: Approved.

Guidance and Counselling Program Review

Purpose: Researchers will assess an Edmonton School District guidance and counselling program, and describe how the program is delivered, the educational benefits for students, and other evaluation results. The results will then be used to develop a model, comprised of a survey and procedures for collecting data, which can be used by school jurisdictions and Alberta Education to assess guidance, counselling, and career counselling programs.
Outcomes: The model will help educators and administrators to enhance guidance and counselling programs for students.
Researcher: Edmonton School District #7.
Branch Manager: Warren Hathaway et al.
Timelines: September 1985 - August 1987.
Status: Approved.

Project ABC (Advancement Based on Competency)

Purpose: The project will develop, use, and evaluate alternatives to the Carnegie Unit time requirement for awarding senior high school credits. Instructional materials (sets of "unit-paks") for the subjects assessed will be made available to Alberta schools along with detailed evaluation results.
Outcomes: The study will make recommendations regarding alternatives to the Carnegie Unit.
Researcher: Calgary Board of Education.
Branch Manager: Nelly McEwen.
Timelines: September 1982 - August 1987.
Status: Approved.

Entrepreneurship in Secondary Programs

Purpose: Both the Albert government's White Paper, **An Industrial and Science Strategy for Albertans 1985-1990,** and the major principles of the **Secondary Education Policy** emphasize that programs should develop the critical and creative thinking skills of students. This project will design a set of criteria for evaluating programs to determine whether they help students to develop creative thinking skills, and the abilities and attitudes necessary for entrepreneurship (innovativeness, risk-taking, goal setting, and a strong sense of self-confidence and self-worth). In applying the criteria to programs, the project will determine gaps and areas where entrepreneurial skills and attitudes could be integrated.
Outcomes: The project will provide the information required for revising and renewing current programs, and will help teachers to promote the desired development of pupils.
Researcher: Dr. Garnet Miller, Alberta Education.
Branch Manager: Warren Hathaway.
Timelines: Ongoing.
Status: Approved.

Teacher Evaluation

Models for Teacher Supervision and Evaluation

Purpose: The project will analyze the facility with which the current Model for Teacher Supervision and Evaluation can be used, and the consequent effects on teaching behaviors and student learning. The project will also describe changes in the perceptions, attitudes, and behaviors of administrators and teachers toward the supervision and evaluation of teaching performance as a result of using the model.
Outcomes: Findings from the project will be used to enhance the existing Model for Teacher Supervision and Evaluation, and to produce a handbook for implementing the model. The handbook will be available to Alberta school districts in the fall of 1986.
Researcher: Medicine Hat School District #76 and the University of Lethbridge.
Branch Manager: Nelly McEwen.
Timelines: July 1986 - July 1989.
Status: Approved.

Assessment of Teacher Evaluation Policies

Purpose: The study will examine the status of teacher evaluation policies, procedures used in implementing them, evaluation instruments currently used, and the perceptions of teachers, principals, and superintendents with respect to the pre-requisites, procedures and results of teacher evaluation. The data collected will indicate the effectiveness of current evaluation policies.
Outcomes: Findings from the study will be useful to Alberta Education in reviewing the effectiveness of the provincial teacher evaluation policy. The information obtained will also assist school districts in implementing effective teacher evaluation policies that lead to enhanced instruction and student learning.
Researcher: Mr. John Burger.
Branch Manager: Warren Hathaway.
Timelines: July 1986 - May 1987.
Status: Proposal is being developed.

MANAGEMENT OF EDUCATION

Management and Finance Plan

Framework for Evaluating the Management and Finance Plan

Purpose: A project team will develop and test various research designs for evaluating the Management and Finance Plan, and the consequent educational outcomes for Alberta Education, school jurisdictions, approved private schools, and private Early Childhood Services operators.
Outcomes: The long-term research design will determine the evaluation questions and methodology to be used for assessing the impact of MFP on the educational system.
Researcher: Alberta Education.
Branch Manager: Percy Mirochnick and Gary Zatko.
Timelines: Not yet established.
Status: Proposal is being developed.

Piloting the School Fiscal Year Change

Purpose: This project will pilot the school fiscal year change from a calendar year (January - December) to a school program year (September - August) in six counties, and one school district. The project will also review the Budget Report Form (BRF), the Program Accounting Coding and Classification Manual (PAB), the Audited Financial Statement (AFS), and the Statement of School Revenue and Expenditure (SSRE).
Outcomes: The pilot project will determine the most suitable method of implementing the school fiscal year change, and the most satisfactory methods for reporting financial information during the school year.
Researcher: Mr. Jack Clarke (Coordinator), Edmonton Public School District #7, and six counties: Red Deer #23, Wheatland #6, Lethbridge #26, Vulcan #2, Lac St. Anne #28, and Beaver #9.
Branch Manager: Nelly McEwen.
Timelines: May 1985 - December 1986.
Status: Approved.

Applicability of Local Area Networked Microcomputers to School Information Management

Purpose: The project will test the benefits of using networked microcomputers to manage school information. Various networks will be tested to ensure that results will be useful to the different administrative styles and sizes of schools.
Outcomes: Results will help educators and administrators use microcomputer networks to facilitate school management.
Researcher: Edmonton Public School District #7.
Branch Manager: Karen Robinson.
Timelines: March 1984 - August 1986.
Status: Approved.

Evaluation of the Annual Education Report (AER)

Purpose: The project will: 1) examine and describe how selected schools and school boards produced and used Annual Education Reports; 2) examine how useful school boards perceived the report to be in communicating educational results to their publics; 3) assess the merit of AERs and means for improving them; 4) recommend how the AERs can more effectively achieve established objectives; 5) provide a guidebook to help schools and school boards enhance the quality of the reports; 6) establish an exemplary process that Regional Offices can use to assist schools in preparing the reports.
Outcomes: Project results will help schools and boards to enhance the reporting of educational results to their communities.
Researcher: To be selected.
Branch Manager: Sharon Campbell.
Timelines: September 1986 - December 1986.
Status: Approved.

Alternative Delivery Modes

Tri-County Co-operative Project

Purpose: A research team will identify and examine problems common to three counties, and will recommend how resources can best be used cooperatively to overcome them.
Outcomes: The project presents an opportunity for members of three counties to work together and consolidate their efforts in solving common problems, and will provide remedial processes that other counties can use in similar situations.
Researcher: Counties of Newell #4, Vulcan #2, and Warner #5.
Branch Manager: Bill Ramsay.
Timelines: February 1986 - September 1986.
Status: Approved.

Partnerships in Education

Purpose: The Calgary Public School District will test and demonstrate approaches to "partnership." The services and resources of businesses and community members will be used to provide students with practical, experiential learning experiences, and to develop supportive relationships among schools, communities, and business agencies.
Outcomes: The approaches tested can be used by other schools to develop educational opportunities for students, and to increase the awareness of and commitment to education by businesses and the general public.
Researcher: Calgary School District #19.
Branch Manager: Bill Ramsay.
Timelines: January 1986 - June 1987.
Status: Approved.

Leadership Skills

Evaluation of the Alberta Academy for Educational Leadership

Purpose: The study will examine the role of the Academy and how effectively activities are carried out. Results will be used to determine whether or not the Academy should continue in its present form, and to design a plan for any improvements which may be required.
Outcomes: The study results will contribute to enhancing the quality of educational leadership in Alberta.
Researcher: L. W. Downey Research Associates Ltd.
Branch Manager: Warren Hathaway.
Timelines: July 1986 - December 1986.
Status: Approved.

Alberta Academy for Educational Leadership: Case Studies

Purpose: The Academy is currently developing more objective procedures for identifying and selecting exemplary educational leadership practices, and clinical approaches to leadership training and skill development. In 1985-86 Alberta Education provided funds to the Academy for conducting workshops to enhance the educational leadership of principals, and for establishing a bank of case studies which could be used in the workshops. This project will facilitate the development of five additional case studies in 1986-87.
Outcomes: The additional case studies will be used in workshops to enhance opportunities for administrators to practise leadership skills.
Researcher: Alberta School Trustees' Association.
Branch Manager: Warren Hathaway.
Timelines: April 1985 - September 1986.
Status: Approved.

Management of Education: Trustees' and Superintendents' Inservice Activities

Purpose: Representatives of the ASTA and CASS will develop a learning package demonstrating how current management concepts and practices can be used to improve educational management in school jurisdictions. The learning package will consist of a motivational videotape, and four instructional handbooks: 1) general management concepts, 2) strategic planning, 3) policy development, 4) evaluation and monitoring.
Outcomes: Demonstration workshops will be provided for school district staffs (primarily trustees and superintendents). The workshops will examine the management activities of selected jurisdictions, the components of the current management cycle, the people involved, and the processes to follow. The workshops will prepare participants to develop and carry out plans for improvements.
Researcher: Alberta School Trustees' Association.
Branch Manager: Craig Roxburgh and Gary Zatko.
Timelines: Ongoing.
Status: The videotape and first instructional handbook have been approved. The videotape has been produced and the instructional text will be completed in December 1986. Proposals for the remaining handbooks are being developed.

Management Of School Capital Funds

Computer Laboratory/Workstation Prototypical Designs

Purpose: The study team will examine and recommend the most appropriate acoustics, lighting, power service, ventilation, cooling, and layouts for computer laboratories in schools. The study will also determine the furniture designs and arrangements most suitable for computer work areas.
Outcomes: Study findings will help educational facility planners to make informed choices in designing school computer laboratories, and in acquiring the furnishings for these work areas.
Researcher: To be established.
Branch Manager: Craig Roxburgh.
Timelines: To be established.
Status: Proposal is being developed.

PROJECTS COMPLETED: 1985 - 1986

From April 1985 to July 1986, the Planning Services Branch completed the following projects. Each project was designed to help educators and administrators enhance educational practices and provide a variety of challenging and innovative learning experiences for Alberta students. Unless otherwise noted, copies of all reports are available on request from Planning Services, telephone (403) 427-2991.

Higher School Enrolments

The study describes how the "echo baby boom" and other socio-economic trends are affecting Alberta school enrolments. The report forecasts a 22.5 to 24.8% increase in the number of public and separate school students over the next decade. School staffs can expect most of the increase in Early Childhood Services and elementary schools this fall to 1990, and consequently in junior high schools from 1990 to 1995.

Walters, Patrick. Alberta Public and Separate School Provincial Enrolment Projections 1985 - 1990. Edmonton: Alberta Education, May 1985.

Computers in Mathematics

The Edmonton Public School District designed an elective computer programming unit for the Mathematics 20 program so that students could develop skills in fundamental programming, algorithmic thinking, and problem-solving. The elective was tested with teachers and students over two semesters. Although the unit was instructionally complex, teachers considered it to be a good supplement for regular course work, and students learned to use computers to solve typical Mathematics 20 questions.

Sigurdson, Sol and Hunka, D. Integrating Programming Into Mathematics 20: Final Report. Edmonton: Alberta Education, July 1985.

Microcomputers Promote Student Learning

The Willow Creek School Division conducted a project to determine the benefits which gifted and average students in grades 6 through 9 derive from using curriculum courseware for computer assisted instruction (C.A.I.) in mathematics and language arts. Students who participated in the project showed more instances of creative thinking; scored higher on the reading comprehension tests used; and performed better on a computer awareness and literacy questionnaire. Gifted students who participated in the project attained a greater number of mathematical concepts and excelled in computer programming. The project report would be a useful guide for schools interested in the educational uses of technology. It includes information on selecting courseware and inservice activities for teachers.

Millar, Garnet and MacLeod, Alan. Microcomputer Learning Project. Edmonton: Alberta Education, October 1985.

Teaching Low Achieving Students

Researchers and teachers assessed a new remedial approach designed to help students learn "how to learn." For two years, teachers used Fuerstein's Instrumental Enrichment program with a class of low-achieving adolescents in a vocational school. Although the study is not conclusive, project results indicated that students receiving the cognitive education program were reintegrated in regular programs more quickly and in larger numbers than those receiving conventional instruction. Teachers supported the program and gained a better understanding of how to help students develop learning strategies.

Samuels, Marilyn et al. Instrumental Enrichment With Low Achieving Adolescents. Edmonton: Alberta Education, July 1985.

Learning Expectations And Student Abilities

Often teachers are concerned with the possible discrepancies between what pupils are expected to understand, and what they are actually able to understand. The Calgary Board of Education examined and identified such discrepancies between the learning demands made by the 1982 Alberta elementary school mathematics program, and the level of responses given by pupils from grades 1 through 6 across five math topics: numeration, operations and properties, measurement, geometry and graphing. The project methods, tests used, and results obtained will help educators modify mathematics programs, study aids, teaching strategies, and tests so that they more closely match the student's abilities at different stages of growth.

Marchand, Lois C., et al. Assessing Cognitive Levels in the Classroom, February 1986.

Education of Girls

The study examined the literature and instructional materials relevant to the education of girls. The report contains reviews of the personal and environmental factors which affect the schooling and learning of girls and boys. It also identifies and describes selected programs in North America and abroad which are being provided to meet needs related to the education of girls. This study provided information for the Deputy Minister's Advisory Committee for the Education of Girls, and will be useful to Alberta teachers and counsellors.

Harvey, Anne. Education of Girls. July, 1986.

Programs For Gifted And Talented Pupils

In March, 1984 Alberta Education provided funding for the Gifted and Talented Amalgamated Project which examined programs for gifted students in four school systems. The following two reports form part of a series of seven publications containing valuable information on the education of exceptional students. The remaining five reports will be completed by the fall of 1986.

A project team assessed programs for gifted and talented pupils in six elementary schools. Team members examined: the appropriateness of program goals and objectives, and the extent to which they were achieved, procedures used for selecting pupils, instructional methods, learning outcomes, and the problems and successes encountered in carrying out the programs. Educators, administrators, and evaluators will find the descriptions and recommendations most useful in planning and evaluating programs for gifted elementary school students.

Clarke, S.C.T. and Nyberg, V.R.. Programs for Gifted and Talented Pupils in Edmonton Catholic Elementary Schools. Edmonton: Alberta Education, 1985.

School staffs, trustees, central office administrators, parents and students participated in an extensive review of the Honors Program offered by Archbishop MacDonald High School. The review examined and assessed: procedures for identifying gifted students, the nature and salient features of an honors program, benefits derived from such educational experiences, and the role of today's comprehensive high school and specialized schools. The final report is a rich source of information which will assist teachers and administrators in helping gifted students realize their potential.

Clarke, S.C.T. and Nyberg, V.R.. Honors Program In A Senior High School. Edmonton: Alberta Education, July 1985.

Special Education Services

A project team evaluated two unique programs which serve the needs of sensory-impaired multi-handicapped students and their families:

1) the Coordinated Assessment and Program Planning for Education Program (CAPE) in Edmonton; and
2) the Coordinated Rehabilitaton and Education Program (CORE) in Calgary.

The information gathered from the study assisted the Calgary Board of Education, the Edmonton Public School Board and Alberta Education in making special educational services more responsive to the emergent needs of children. School staffs will also find the information useful in planning local special education programs.

Rutland Consulting Group Limited. Evaluation of the CAPE and CORE Programs. Edmonton: Alberta Education, July 1985.

Colour and Light Effects on Students' Well-Being and Performance

The project examined the effects of classroom colours and lighting on 700 students in grades 1 through 6 from four elementary schools in the Wetaskiwin School District. Project results indicated that giving children supplemental exposures to ultraviolet radiation significantly reduced student absences and dental caries. Students who received supplemental ultraviolet radiation missed only 138 school days compared with the 311 days missed by an "untreated" group of students. The number of dental cavities among treated students was cut by more than one-half in comparison to the control group. Results also indicted that "cool" colours such as blues contribute to reduced blood pressure and relaxation, while "warm" colours like yellows and reds tend to elevate blood pressure and foster alertness and readiness. Libraries and classrooms that were predominantly blue were quieter than those that were primarily yellow.

Although the study is not conclusive, the information gathered provides direction for modifying classroom environments to enhance the well-being of students and teachers.

Wolfarth, H. Colour and Light Effects on Students' Achievement, Behaviour, and Physiology. Edmonton: Alberta Education, June 1986.

Evaluating and Improving Teaching Performance Inservice Materials

The project reviewed and clarified what is known about teaching practices which facilitate the desired development of pupils. The following materials were then developed so that teachers and administrators can practise approaches and skills which lead to enhanced instruction and student learning.

Mireau, Laurie. Evaluating and Improving Teaching Performance: Inservice Kit, February 1986.

The kit is comprised of a manual and a set of 30 videotapes. The 350 page manual describes over two dozen effective teaching skills and illustrates how to use them. Advice is given on observing and recording these behaviors during classroom instruction, and on using the information in subsequent evaluations and conferences.

The videotapes, an essential part of the kit, depict teaching episodes and several consultation sessions. Fourteen videotapes are to be used for training purposes, and 16 for practising skills. The videotapes should be used in an integrated fashion with the corresponding modules from the manual.

The manual can be purchased from the Learning Resources Distributing Centre of Alberta Education.

Sets of videotapes are available from ACCESS NETWORK, Media Resource Centre, 295 Midpark Way, S.E., Calgary, Alberta T2X 2A8, telephone 1-(800), 352-2893. On provision or purchase of tapes, ACCESS will provide free dubbing services for school jurisdictions.

Mireau, Laurie. Identifying and Using Effective Teaching Behaviors, February 1986.

The 47 page publication transcribes the commentaries from the videotapes which accompany the first five chapters of the above noted manual. It also includes bibliographies extracted from the Inservice Kit and from Planning for an Evaluation of Teaching Performance, Vol. II. Available from: Central Support Services, Alberta Education.

Mireau, Laurie. Trainer's Manual for Inservice Kit, February 1986.

The 46 page document provides suggestions for using the Kit in group inservice sessions, and describes other inservice packages on topics related to teaching effectiveness. Available from: Central Support Services, Alberta Education.

Yuzdepski, Iris and Elliott, Linda. Planning for an Evaluation of Teaching Performance (4 Volumes), February 1986.

The set of reference materials is designed to support and assist administrators and teachers in building teacher evaluation procedures which will lead to improved student learning. The set complements the Inservice Kit and is comprised of the following manuals:

Vol. I	A Manual of Guidelines;
Vol. II	Teacher Effectiveness: Annotated Bibliography and References;
Vol. III	Evaluation Procedures: Annotated Bibliography and References;
Vol. IV	Summaries of Instruments for Use in Evaluating Teaching Performance.

Available from: Central Support Services, Alberta Education.

Computer Systems for Managing School Information

Edmonton Public School District conducted three inter-related projects to examine how computer systems could best be used for the more efficient management of school records, student scheduling, attendance, and marks or progress reports. A detailed set of criteria was developed to help school administrators identify their particular needs and consequently select the most appropriate school information management system. The criteria developed were then used in selecting and assessing the microcomputer and minicomputer systems on the market to determine their relative suitability for Alberta junior and senior high schools.

Wright, P. and Wernik, I. Selection Criteria for Integrated Student Information Management Systems. Edmonton: Alberta Education, February 1986.

Wright, P. and Valbonesi, P. Microcomputer Based School Information Management Systems (SIMS) in Alberta Junior and Senior High Schools. Edmonton: Alberta Education, February 1986.

Wright, P. and Valbonesi, P. Minicomputer-Based Student Information management Systems in Alberta Schools. Edmonton: Alberta Education, February 1986.

THE ROLE OF BRANCH MANAGERS

Branch managers play an important role in the educational research program. As consultants, their contact with educators puts them in a position to identify emergent educational needs, areas of concern, and what research needs to be undertaken to provide innovative and appropriate solutions to educational problems. Much of the information that branch managers collect is used in developing Alberta Education's annual priorities for the funding of educational research projects.

In the selection of project proposals, branch managers use their training and experience to review, refine, and develop proposals so that the projects conducted will contribute the information required to revise and improve educational programs and practices. In managing the projects selected, branch managers provide guidance and advice to the researchers on the conduct of the project, keeping in view the primary objective of improving learning experiences for students.

The dissemination of project results is a critical aspect of promoting educational change. Branch managers assist in developing communication strategies which are consistent with what is known about change so that educators and administrators can readily use the results in ways which are most appropriate to their needs.

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